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ABSTRACT

Four papers discuss training and personnel in early childhood education. The concepts developed by the Division of Training Programs in seeking to award a grant for planning inservice training programs are described by J. Gerald Minskoff as is the role of a training coordinator. An evaluation of a pilot program to train teacher aides is presented by Fred L. Gross, while Leonard Kaplan and Vallis Fineberg consider the effective use of paraprofessionals in the classroom. Also included is a paper by Richard Artes on the use of paraprofessionals for speech and language development in young children. (RJ)

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Exceptional Children Conference Papers:

Training and Personnel in Early Childhood Education Programs

Papers Presented at the

Special Conference on Early Childhood Education

The Council for Exceptional Children

New Orleans, Louisiana

December 10-13, 1969

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Preface

Training and Personnel in Early Childhood Education Programs is a collection of 4 papers selected from those presented at the Special Conference on Early Childhood Education, New Orleans, Louisiana, December 10-13, 1969. These papers were collected and compiled by The Council for Exceptional Children, Arlington, Virginia. Other collections of papers from the Conference have been compiled and are available from the ERIC Document Reproduction Service. Other collections announced in this issue of Research in Education may be found by consulting the Institution Index under Council for Exceptional Children or the Subject Index under Exceptional Child Education. Titles of these other collections are:

Early Childhood Education - An Overview
Curriculum, Methods, and Materials in Early Childhood Education Programs
Environmental Influences in the Early Education of Migrant and Disadvantaged Students
Parent Participation in Early Childhood Education

The Training Function of Early Childhood Models Centers*

BY
J. Gerald Minskoff
Division of Training Programs
Bureau of Education for the Handicapped

We have learned that Training, as such, is not a single entity. As a matter of fact, when Training does become a single, fixed entity, its essence, and its functions no longer belong to reality. The things we train for..... the people we train.... and the people who do the Training continually change! Therefore, it should be possible to have as many training functions as you do situations. (Without losing sight of certain commonalities.)

In recent years we have found this principle to be true throughout our elementary and secondary schools, and especially, our colleges and universities (where the student has become the teacher of the teacher).

When the guidelines for the "Handicapped Children's Early Education Assistance Act" (P.L. 90-538) were released, one of the requirements that each of the "model centers" applicants needed to fulfill was that of Training of personnel.

Each project was expected to include inservice activities for its personnel. These activities may include formal and informal staff meetings, workshops, national, regional and state institutes, retreats, demonstrations, work conferences, laboratory and clinical experiences, training in the use of media, and cooperative enterprises with nearby projects.

Our early childhood model Centers may also serve as practicum or internship centers for university and college training programs.

In an analysis of our Early Education project proposals earlier this year, Dr. Minnie Berson pointed out that "....Model demonstration projects cannot function as examples of excellence unless they are commited to the training of new staff members and the continuous professional growth of total project personnel. For example the more excellent the model project, the more likely it is to be respected by institutions of higher learning and regarded as a center for practicum and internships for related professional and paraprofessional personnel. As programs strive to become more comprehensive (especially those with a major focus on the education of young children) staff training at all levels will have to be an ongoing activity as new knowledge leads to more effective services."

In view of all this, early last Spring some of us in the Division of Training Programs of the Bureau began to wrestle with the problems of how best to facilitate such training functions and roles. We eventually approached the complexities of the problem by first deciding that no one person, program, or campus had the answers to facilitating total inservice training. That is to say except for one or two isolated training programs for young visually impaired children, no one had these answers in terms of training people to work with the entire range of handicapping conditions in very young children. Therefore, any college or university applying for such a training grant would have to provide, at the outset, evidence of some marriage (or at least a strong rapport) between its Special Education Department and the Department or component which dealt with early education, and/or child development.

We were seeking to award one or more "Special Projects" Planning Grants to serve the following Primary and Secondary purposes:

1. Primary Purposes of the Planning Grant:
   a. to (eventually) design a prototype (or model) Training program to meet "in-service" personnel training and re-training needs of the newly developing Early Childhood Exemplary Centers for the handicapped; and
   b. to design Evaluation Procedures to test the effectiveness of the model. Thus, a successful Planning Grant should have as its outcome a well-defined conceptual model and detailed procedures by which the effectiveness of the model can be implemented and tested. This model might then become a proposal for future support under the Prototype part of our Special Projects Training Programs.
2. The Secondary Purpose of the Planning Grant:
   ...was the offer current "in-service" training assistance to all of the exemplary centers. It was assumed that in providing such assistance, the (training) grantee would acquire invaluable experience upon which to base the development of the prototype and its evaluation.

Now, the essence of our whole approach here has been to avoid the bind of rigidity in training approaches. Specifically, to be wary of training models which cry... "I am the way, and the only way." The Division of Training Programs has a general concern with the problem of describing, implementing, and evaluating new approaches to training and re-training personnel working in evolving, developing, and changing service situations. The newly developing Early Childhood Centers are specific cases of such evolving situations. Therefore, it would be entirely inappropriate to have approached the training component of this legislation as if we knew in advance the major knowledge and skills the Exemplary Centers needed before the situations unfolded. Undoubtedly, the original plans submitted by each training Center will be changing as experiences are gained.

Furthermore, it's a reasonable consumption that no matter how sound the evolving service plans of the Centers might be, unless the personnel are capable of implementing these plans, no fair evaluation can be made of the effectiveness of these centers as demonstration model service programs. Therefore, the approach that we hoped would be taken in the training proposals must embrace a training program flexible enough to provide specific training at the appropriate time and place when new concepts are developed by the Centers and before these concepts are implemented. Although flexibility was essential, we expected that the training proposals would reflect a systematic analysis of proposed training activities and their relevancy to evolving types of situations so crucial to the success of the prototype development efforts.

In an attempt to give some focus to such a project the Division of Training Programs outlined some of its thinking and concepts for potential Training Center applicants. One approach which offered some interesting possibilities was to have each model center designate a person who would be responsible for coordinating and facilitating training activities at each of the centers, for example, a training coordinator. The training coordinator might be the program director himself, some other full-time staff member, or possibly a part-time staff member of the center. The training grantee would then focus on preparing training coordinators for their role rather than attempting to train a wide variety of personnel in a great array of specific skills. By this approach, the task might become manageable for the grantee and at the same time build in the centers the capability of meeting their own training

needs as they evolve. Obviously, no coordinator could be prepared to train all types of personnel for all tasks. Therefore, this approach assumed that the coordinator's role would not include much specific training per se. His major role would be to bring together appropriate training resources with the personnel to be trained in a fruitful way.

As for the kind of knowledge and skills that a training coordinator should receive, the following ideas were among those suggested. A Model Center Training Coordinator should:

1. Know where to get expert assistance and information relevant to training tasks of the Centers, such as nearby universities, local professionals, medical facilities, Instructional Materials Centers, and Research and Development Centers in early childhood education;

2. Know how to select experts relevant to the training task;

3. Have the capacity to use the experts in analyzing the task and lay out a training effort;

4. Be persuasive in obtaining people to do the training;

5. Have high skills in organizing groups to facilitate problem solving activities.

It was recommended that the training grantee should place heavy emphasis on working with the training tasks identified by the Center coordinators as they arise in a problem-solving fashion. One procedure might be to survey the training tasks identified by the Center coordinators, finding common problems and those specific to a Center, work with the coordinators to construct tentative plans, have the coordinators attempt to implement them, then assist the coordinators to evaluate and revise their thinking. An advisory committee, required in this grant, probably could be most helpful in parts

of this procedure. Out of these experiences the nature of the prototype could evolve. In addition, the grantee could be developing instructional materials for future coordinators through the use of video tapes, manuals, films, and the like.

One of the outcomes of the planning and evaluation activities might be to relate the types of training arrangements possible in the centers (e.g., workshop, individual supervision, lectures, etc.) which are best suited to the achievement of the specific types of training tasks.

After careful evaluation and review, the Special Projects training grant entitled: "Planning Project for Staff Training of Exemplary Early Childhood Centers for Handicapped Children" was awarded to the University of Texas at Austin under Public Law 85-926, as amended. This grant, in the amount of $142,797, is under the direction of Dr. Jasper Harvey and his associate, Dr. Anne Adams.

The process of finding and developing new concepts and processes for training is not easy. There is always a tendency to eliminate differences from program to program and establish procedures for training others based on conformity and ~~commalities~~ commonalities alone. It has been the purpose of the Division of Training Programs to attack the training problems of the Early Childhood Model Centers in such a way so as to maintain the integrity of each program and suit the training to each programs needs. This is very difficult, but I believe we have made some inroads.

THE PARAPROFESSIONAL IN EARLY EDUCATION FOR THE HANDICAPPED - AN EVALUATION OF A PILOT PROGRAM TO TRAIN TEACHER AIDES

Fred L. Gross, Ph.D.
Louisiana State University, New Orleans

The workshop or training program from which this study has been prepared was conceived as an exploratory and developmental program in an emerging team approach of professionals and non-professionals to establish a model training program for teacher aides.

This project was under the auspices of the Jefferson Parish Schools system, which is part of the Greater New Orleans metropolitan area, and funded by the Education Professions Development Act.

The Purposes of the Program to Train Teacher Aides

The Jefferson Parish Program to Train Teacher Aides was focused on laying a sound foundation for the initiation, development, and implementation of a model teacher aide training program which would facilitate a smooth and coordinated entrance of the paraprofessionals into the school system.

The program as conceived and carried out sought to differentiate the roles of the teacher aide and the teacher in the instructional program; to provide teachers with an opportunity to plan, organize, and evaluate the use of teacher aides as part of an instructional team; to evaluate the effectiveness of the different components of the program in improving the skill, knowledge, and understandings of the teacher aide as a member of the team; and to ascertain the changes, if any, in teacher aide attitudes.

Briefly stated, the general objectives of the program were:

(1) to provide appropriate training for teacher aides who will be employed by the school system,

(2) to develop a model training program which can be used for future training sessions, and

(3) to demonstrate the contribution paraprofessionals can make to the educational endeavor in Jefferson Parish schools.

Project Organization

Content

The paraprofessionals' training was accomplished in an eight-week program beginning on June 16, 1969 and ending on August 8, 1969. All of the sessions were held in one school, centrally located in the parish, which provided the subjects with both training and practicum, as this school was also a Head Start and Title I center. Part of the training was conducted by staff of the Jefferson Parish School Board and part by consultants from the College of Education, Louisiana State University in New Orleans.

The morning sessions, which were held from 9:00 to 12:00, were conducted by the Jefferson Parish Schools staff; and the afternoon sessions, held from 1:00 to 4:00, were managed by the LSUNO consultants.

The morning sessions were separated into three phases consisting of a general orientation to the school system, specific orientation to tasks of teacher aides, and practicum experience. Each phase of the morning sessions was conducted by key administrative personnel. They were:

(1) the Assistant Superintendent for Instruction, leading sessions on teacher aides' responsibilities to Jefferson Parish Schools,

(2) the Director of Pupil Services, directing sessions on the parish policies concerning student attendance, discipline, and state laws governing discipline of children,

(3) the Director of Elementary Education, guiding the sessions on the philosophy of elementary education in the system,

(4) the Director of Special Projects, leading the sessions on the structure and organization of the local school system, and

(5) the project coordinator, who related information regarding specific schools

and general educational procedures in conjunction with coordinating the activities of the different sessions and the practicum-observation experience.

General Course Outline and Content Syllabus of the Morning Sessions

The following outline was adhered to throughout the morning sessions of the eight-week training program.

I. GENERAL ORIENTATION

A. Explain School System (Organization)

1. What is a school system
2. What is our system (organizational chart)
3. Philosophy of Elementary Education in our system

B. What is a Teacher Aide?

1. History of movement
2. Role of national movement
3. Role in our system - job description, pay, sick leave, holidays, etc.
4. Explanation of Head Start and Follow Through Program
   a. Head Start at National level
   b. Head Start in Jefferson Parish
   c. Follow Through at National level
   d. Follow Through in Jefferson Parish

C. Jefferson Policies and Procedures

1. Employment responsibilities to Jefferson Parish School Board
   Neatness, attendance, acceptance of responsibility, enthusiasm, co-operation with other staff members, respect for authority.
2. Our policy concerning students
   a. Student attendance - why important
   b. Discipline - who should administer, types that can be given
   c. State laws governing discipline of children

II. SPECIFIC ORIENTATION - TASKS FOR TEACHER AIDES

A. Clerical

1. Collecting lunch and milk money
2. Collecting photo money and for field trips
3. Maintain records other than academic or personal records
4. Keeping current classroom records
5. Requisitioning classroom supplies
6. Keeping attendance records
7. Keeping records of books children have read
8. Keeping inventory of classroom stock - equipment, books, and instructional supplies
9. Managing classroom libraries
10. Duplicating and collecting instructional materials
11. Keeping and maintaining a representative folder of each pupil's work
12. Filing resource materials for various teaching units
13. Preparing information for teacher reports - 30 day report

B. Non-instructional

1. Upon teacher's request gather supplementary books and material for instruction
2. Distribute books and supplies
3. Collecting homework and test papers
4. Building up resource collections
5. Obtain materials for special instructional projects - science, rock collections
6. Helping supervise students in cafeteria and playground
7. Supervise loading and unloading of school buses
8. Monitor class when teacher is away for brief period
9. Check out library books for pupils and/or teacher

10. Securing of parental permission forms for school activities (field trips)
11. Display pupil work
12. Help with children's personal possessions (coats, etc.)
13. Perform routine health tasks; i.e., weighing, measuring, and eye test by chart
14. Administer routine first-aid and attending sick and injured children
15. Telephone parents to pick up sick or injured child
16. Phone parents to verify notes for child to leave school early
17. Assisting committees engaged in special projects (constructing, researching and/or experimenting)
18. Helping in preparation of assembly plays and programs
19. Helping settle pupil disputes and quarrels
20. Set up class exhibits
21. Accompany child to office, nurses' room, rest room, etc.
22. Help teacher supervise on field trips
23. Run errands
24. Copy on chalk boards
25. Repair torn books
26. Help teacher build school/home relationships

C. Instructional Tasks (Work to be done at direction of teacher)

1. Assist teacher in observation of children
2. Preparing instructional materials
3. Collecting and arranging displays for teaching purposes
4. Assist teacher in helping children catch up on instruction and assignments missed while out of class
5. Instructing child in safe and proper use of tools
6. Teaching etiquette and good manners

7. Assisting teacher in special demonstrations in art, science, etc.

8. Reading and story telling

9. Helping pupils find reference material

10. Supervise pupils' group-activity work

11. Put written and number work on chalkboard

12. Assisting in drill work with word phrases and number flash cards

13. Arranging, assisting, and supervising in-door games on rainy days

D. Audio-Visual Assistance

1. Ordering and returning films, filmstrips, and other audio-visual materials

2. Procuring and returning audio-visual equipment

3. Setting up and operating over-head projector and other instructional equipment

4. Prepare transparencies, charts, blackboards, etc.

E. Housekeeping

1. Help children to prepare and supervise pupil work areas

2. Mixing paints for art instruction, putting down drop-cloths, etc.

3. Arranging instructional materials for easy accessibility

4. Assisting pupils with clean-up time

5. Keeping bulletin-boards clean, neat and up to date

6. Keeping chalkboard clean and ready for use

7. Maintaining orderly arrangement of classroom (keeping desks, chairs, equipment, and books in order)

8. Work with children in watering plants and tending pupil classroom projects

9. Preparing when necessary and serving refreshments at snack time and cleaning up afterwards

10. Assisting the teacher in the emergency care of sick or injured students (minor problems)

III. PRACTICUM

1. This part of the program will be devoted to observation of a teacher aide in action.
2. Time allowed for practice as teacher aide (under supervision of classroom teacher and master teacher)

Objectives, General Course Outlines, and Content Syllabi of the Afternoon Sessions

The afternoon sessions, conducted by the LSUNO consultants, were divided into six areas of instruction relevant to improving the skills, knowledge, and understandings of the teacher aides. The areas of instruction or consultative service were:

(1) child growth, development, and behavior;

(2) health, physical education, and recreational supervision;

(3) mathematics and/or the number system;

(4) language arts;

(5) creative arts; and

(6) audio-visual.

The following were the objectives, general course outlines, and content syllabi of the instructional areas.

PHYSICAL EDUCATION AND RECREATIONAL SUPERVISION

I. OBJECTIVES

1. To acquaint aides with goals of health, physical education, and recreation.
2. To demonstrate ways in which an aide can assist the classroom teacher in extending the physical education lesson and in providing an opportunity to practice in skill building.
3. To familiarize the aides with activities suitable for physical education.
4. To show techniques for organizing, introducing, and explaining physical education activities.
5. To provide some practical experiences which might increase the aides'

effectiveness in this area.

6. To familiarize the aides with songs and games suitable as bridging activities (transitions from one subject area to another)
7. To illustrate how an aide might assist the teachers in extending health lessons - habits, attitudes, as well as maintaining a healthy environment.
8. To acquaint the aides with techniques of health screening - eyes, ears, teeth, weight, height, etc.
9. To show techniques for organization and supervision of recess activities.
10. To provide the aides with knowledge concerning safety rules and practices on the playgrounds.

II. PROCEDURES

After an introductory discussion of general objectives of physical education and of the types of recommended activities, the teacher aides will be given the opportunity to experience a variety of activities. Each activity will be analyzed in terms of techniques, skills, and safety factors. The aides will then participate in the leadership and supervision of these activities. It will be emphasized that the aides are not to assume the main responsibility for teaching physical education.

Aides will be given an overview of health education, especially the role of instruction in the formation of health habits and attitudes and of the maintenance of a healthy environment. They will also be introduced to various health screening devices and to the techniques of using these.

III. OUTLINE

A. Objectives of physical education
   1. Physical fitness
   2. Motor and social skills
   3. Knowledge
   4. Attitudes and appreciation

5. Better use of leisure time

B. Orientation to activities

1. Movement exploration

2. Basic Locomotor and non-locomotor skills

3. Games of low organization

a. Running-tagging games

b. Simple ball games

c. Classroom games

4. Stunts and selected apparatus skills

5. Relays

6. Story plays

7. Rhythms

a. Creative movement

b. Action songs and finger play

c. Singing games

d. Simple folk dance

e. Miscellaneous rhythmic activities

C. Techniques

1. Organization

2. Teaching

3. Supervision

4. Safety

CHILD GROWTH AND DEVELOPMENT AND BEHAVIOR PATTERNS IN CHILDREN

I. BASIC OBJECTIVES AND GOALS

1. To assist the paraprofessional worker in understanding basic principles of child development.

2. To be sensitized to individual differences among children.

3. To relate basic concepts of individual differences to practical application

in the classroom.

4. To help the aide recognize deviant behavior in the classroom and suggest appropriate techniques to cope with this situation.
5. To acquaint the aide with elemental concepts of personality and learning so she can assist the classroom teacher in aiding each child to make an optimum adjustment to school.

II. OUTLINE OF CONTENT

A. Introduction to Child Development

1. Developmental Principles

a. Hereditary contribution

b. Maturational factors

c. Environmental influences

d. Physical growth

e. Emotional development

f. Social development

2. Expectations

a. Expectations of children in early childhood

b. Expectations of children in middle childhood

c. Expectations of children during adolescence

3. Individual Differences

a. Understanding the exceptional versus normal child

b. Intellectual differences in children

B. The Family

1. Family influences on the child

2. Family influences on the school

C. Behavior and Personality

1. Basic needs of children

2. The aggressive child

3. The withdrawn child

4. General problems of maladjustment

5. The child's reactions to anxiety and stress

6. Meeting emotional needs of children

7. Social and emotional maturity in the child

D. Learning

1. How children learn

2. The importance of motivation to behavior

3. Motivating the child in the classroom

4. Reward and learning

5. Unique problems of disadvantaged learners

6. Academic pressures on children

E. The Self-Concept of the Child

1. The self-concept in personal adjustment of the child

2. Changing self-attitudes

3. Developing responsibility in children

F. Discipline

1. Some reasons children misbehave

2. Methods of classroom control

3. Desirable school discipline

G. Peer Group

1. Importance of peer groups influences

2. Helping children get along with others in school

MATHEMATICS AND/OR THE NUMBER SYSTEM

I. GENERAL OBJECTIVES

A. To develop an appreciation for the world of numbers and their usage

B. To develop a facility in working with numbers

II. SPECIFIC OBJECTIVES

A. To acquaint the teacher aide with the number concepts which would be in the realm of understanding of children within the grade range of their aide duties.

B. To understand the vocabulary of elementary mathematics.

C. To demonstrate ways in which the aide can work with the teacher in making the instructional program in mathematics more effective.

III. SEQUENCE

A. The role of mathematics in the elementary school program

B. The number concept and vocabulary

1. What are numbers
2. The counting numbers
3. The natural numbers
4. Extending the number system

C. Working with teachers in helping students develop number concepts

D. Working with the teacher in implementing the mathematics program

LANGUAGE ARTS

I. OBJECTIVES

Since children learn essentially by doing and getting feedback on what they have done, and since the goals of curriculum are to help learners think, speak, listen, read, and write to the limit of their capacities, then the most reasonable premise is that they should do exactly those things. The following objectives are essential to achieving the goals of language arts.

A. Play Acting

To help children act out, to express themselves, and to fill out a ready-made story. The purposes of acting out are: (1) to promote expression of movement and speech; (2) to forge drama into a learning instrument; (3) to make school experience with language fun and meaningful; (4) to

further peer socialization; (5) to gain understanding of style as voice, role, and stance as achieving effects on others; (6) to develop those necessary characteristics such as attending, responding, interacting, and turn taking; (7) to exercise and channel emotions.

Means of developing play acting skills are:

a. Playing with objects

b. Moving to sound

c. Pantomime

d. Enacting feelings

e. Recasting roles

f. Enacting ready-made stories

g. Free improvisation of a story idea

B. Speaking up

If children are to develop their language powers, they must talk a lot. Learning to read and write will depend in large measure on growth of oral language. Thus, children should talk in school at least as much as they do outside. To ensure opportunities for speaking up, the following activities are recommended:

a. Conversation

b. Small group discussion

c. Large group discussion--with emphasis on content of speech rather than speech as a behavior

d. Unstructured discussion--opinions, descriptions

e. Structured discussion--logic

f. Questioning

g. Framing topics

h. Show-and-Tell

i. Listening as basis of all above

C. Becoming Literate

a. Listening to stories and poetry read aloud

b. Choral reading

c. Development of auditory discrimination skill; beginning of essential word attack skills

d. Beginning development of comprehension skills

D. Writing

a. Handwriting--letter formation--size, slant

b. Composition

(1) Dictating stories

(2) Drawing a series of pictures that tell a story

(3) Writing captions

(4) Recording observations

CREATIVE ARTS

Cultural Arts education in childhood should center on three major roles and activities found in the adult community of arts: the artist, who makes or performs; the spectator, who is an informed observer; and the critic, who gives reasons for judging the merits of art. The following program is developed to provide beginning experiences in those three areas.

I. MUSIC

The major objectives of the music program should be placed on listening, rhythmic, and singing experiences. To achieve these objectives the following activities would be provided for:

A. Listening experience

Learning to listen to music to

1. enjoy the sound of music

2. differentiate the various rhythms

3. identify common instruments

4. learn simple melodies

5. experience the mood of music

B. Rhythmic experiences

1. to respond to the elements of rhythm

2. to create basic rhythmic patterns

3. to act out movements

C. Singing experiences

1. to experiment with voice ranges

2. to sing simple melodies

3. to create individual songs

Throughout the music program, the importance of music in everyday life will be stressed. The aide will assist the teacher in achieving the foregoing objectives.

II. ART

The purposes of art instruction are:

1. To provide children with a means of self-expression

2. To help children understand how and what art communicates to us

3. To help children open their eyes to the things of beauty that enrich living

To achieve these objectives, the teacher must:

1. Provide information and guide perception so the child can

   a. manipulate materials to create a work of art

   b. discriminate materials, process, and qualities of works of art

2. Provide practice time so the child can

   a. develop skill in selecting and using materials in order to create the qualities he wants

   b. recognize materials and processes

3. Relate the child's experience in creating, observing, and judging his own work to the work of artists so that the child can appreciate the range of styles in art.

The teacher aide will assist the teacher in achieving these objectives.

AUDIO-VISUAL

I. SCOPE

The overall purpose of this unit is to introduce Teacher Aides to the use of audio-visual materials in instruction. The emphasis is twofold: to lead teacher aides to appreciate the potential of (1) the classroom as a learning laboratory and (2) audio-visual materials as effective tools of teaching and learning.

Specifically, the objectives of this unit are to help teacher aides to:

A. Understand

1. the vocabulary of audio-visual instruction
2. the place of audio-visual materials in the teaching-learning process, and
3. the potential effectiveness of audio-visual materials in the instructional program

B. Know

1. typical types of audio-visual materials available to teachers
2. typical types of audio-visual equipment available to teachers
3. fundamentals in the preparation of audio-visual materials
4. fundamentals in the operation and care of audio-visual equipment
5. guidelines for the management of audio-visual supplies, materials, and equipment, and
6. ways in which teacher aides can assist classroom teachers with audio-visual materials and equipment.

C. Develop audio-visual skills

1. through a practicum which includes demonstrations and drill in the preparation of audio-visual materials and operation and care of audio-visual equipment,

2. through on-the-job training in the use of audio-visual materials and equipment by observing, conferring with, and assisting teachers in the context of the classroom.

II. SEQUENCE

Audio-Visual Instruction

A. The Classroom as a Teaching-Learning Laboratory

B. Experiences Leading to Learning

C. Audio-Visual Materials and the Teaching-Learning Process

D. Audio-Visual Equipment and the Teaching-Learning Process

E. Fundamental Principles in the Instructional Use of Audio-Visual Materials and Equipment

F. Integrating Audio-Visual Materials into the Instructional Program

G. Guidelines for Managing Audio-Visual Supplies, Materials, and Equipment

H. Ways in Which Teacher Aides Can Assist Teachers in the Use of Audio-Visual Materials and Equipment

Delineation of Subjects

Twenty-five persons, all female, were selected from a large number of applicants for training in the program. All of the trainees had to have children attending schools located in neighborhoods classified as culturally disadvantaged. The average or mean age of the twenty-five trainees was 34.6, the median age was 31.0, and their ages ranged from 21 to 62. Eighteen of the subjects were Negro and seven were Caucasian. The mean number of children per trainee was 3.6 and the number of children of each trainee ranged from 1 to 8. Their educational background or training ranged from a low of 8 years of formalized education to a high of 14 academic years. The mean years of educational experience was 11.1 for the twenty-five subjects and the mean or average number of years since the trainees last attended school was 17.7. Job histories of the trainees clustered into four general areas; they were: short-order cook or waitress, substitute teaching, maid service, and general

department store employment.

Each trainee received $25.00 per week for eight weeks and was awarded a certificate for successful completion of the course. The trainees were guaranteed employment in the Jefferson Parish schools prior to the training program and at termination were assigned to first grade and special education classes.

Evaluation Procedures, Results, and Limitations

The evaluation of the pilot program includes assessment of changes in teacher aide attitudes, skills, knowledge, and understandings pertaining to the instructional areas, development of training methods for teacher aides, and appraisals of effectiveness of the teacher aide in giving assistance in the instructional process and to the teacher in general.

Instruments Used to Gather Data

The program was evaluated through the use of written questionnaires, multiple choice test questions, and a check list. The instruments used to evaluate the subject's mastery of the content of the afternoon sessions were prepared by each consultant responsible for a particular session. The questionnaires and the check list were prepared by two other consultants who were involved in the instructional aspects of the program.

The following is a description of each instrument of the evaluation.

Attitude Questionnaire. The Attitude Questionnaire contained 110 statements, each followed by a five position scale with headings ranging between strong agreement and strong disagreement. The statements represented positions related to five specific sub-topics of general attitude. These five areas were: attitude toward students, attitude toward self, attitude toward the educational system, attitude toward the role of a teacher aide, and attitude toward occupational opportunities. Statements representing each of these areas were selected following a literature search and a review of other locally developed instruments. Approximately one-half of the statements were worded positively and the others were worded negatively in

order to stimulate careful reading. The statements for each of the five areas were mixed so that the subjects would not be aware of the sub-divisions in the instrument. A final average score for each of the five areas was obtained by assigning values from 1 to 5 with the lower numbers representing negative attitudes and 5 representing a strong positive attitude. To determine the validity of the scaling procedure the instrument was given to the staff of the aide training program. The instrument was used with the aides, some similar subjects who were serving as aides in the summer Head Start program and a control group of parents with backgrounds similar to the aides. The instrument was administered at the beginning and at the end of the training program to all three groups.

Multiple Choice Content-Achievement Tests. These tests were constructed by each consultant responsible for a particular instructional area. The tests covered the main concepts of the afternoon sessions. They were administered to the aides on the first and last day of each week long session.

Training Program Evaluation Questionnaires. There were two different forms of this instrument, a teacher aide form and a staff form.

Teacher Aide form. This form contained statements relative to the fashion in which the training program was conducted. Each statement was followed by a yes-no response choice. In addition, each statement called for further comment from the aide if desired. The statements were obtained from a search of relevant literature. The form was given to the aides on the final day of the program.

Staff form. This form contained questions relative to content, sequence, activities, material, and organization of the aide training program. A space for comment was provided for each question as well as space for general suggestions for improvement of the program. The form was given to the staff at the end of the summer program.

Follow-up Evaluation Questionnaire. This instrument contained three major sub-

divisions. There were 45 statements related to "Instruction Functions" and 40 statements related to "Clerical, Housekeeping and Technical Functions of Aides." Three boxes followed each statement, and the evaluators (regular teachers) checked these boxes to indicate whether their aide did not perform that function, needed more training to handle the job, or performed the function satisfactorily. The third section of the instrument was an open ended question for specific aspects that need to be stressed in the training of aides. The 85 statements were taken from the initial proposal for the aide-training program and a literature search. The instrument itself was given to teachers who had aides from the program working with them in the fall following the summer training. ~~A copy of this instrument is found in the appendix.~~

Treatment of the Data

The data from the various instruments consisted of single composite test scores for aides, frequencies of indicated response for various categories and unstructured responses were reported as they were written. The frequencies were tallied and reported in appropriate categories. The composite test scores were used to test various hypotheses of the evaluation. These test scores could be considered ordinal in nature in that they could meaningfully be used to rank subjects; therefore, the statistical tests which were used in this evaluation were the Friedman two-way analysis of variance and the Kruskal-Wallis one-way analysis of variance. Group differences were reported as a function of sums of ranks.

Tests of Attitude Change. In order to find out if the teacher aide training program was effective in changing attitudes of the participants, a comparison situation was set up using three groups. The individuals participating in the training program constituted one group. A second group was made up of individuals who were hired by the parish to serve as aides during the summer Head Start program. A final group consisted of parents with backgrounds similar to those of the first two groups.

The members of this third group did not participate in any sort of formal program during the summer. The Attitude Questionnaire was given to all three groups at the beginning and the end of the summer training program. The testing situation, however, was not arranged as desired with some results coming in after others and with a loss of subjects in the post-test situation. The hypotheses that all three groups came from the same population with respect to the five measures of attitude of the Attitude Questionnaire was tested, both for the pre-test and post-test results. Kruskal-Wallis one-way analysis of variance was used to test the five pre-test and five post-test hypotheses about group equivalence on attitude measures.

In addition to making group comparisons before and after the program, comparisons were made of initial and terminal attitude measures for the participants of the aide-training program. These comparisons were made to determine the extent of change during the program. The null hypothesis of identical populations was tested by the Friedman two-way analysis of variance statistic. This technique was used since the pre- and post-test results for the group of teacher aides represented repeated measures and some control for this source of variance was necessary.

Treatment of Multiple Choice Content-Achievement Tests. The tests which were made up for the content areas of the afternoon sessions were given to the participants of the training program before and after each content area presentation. These results were examined to determine the extent of change with respect to the mastery of content as measured by the tests. Since these scores also represented repeated measures on the same subjects, the Friedman two-way analysis of variance was used. The null hypothesis of similar populations was tested with each of the five afternoon content areas, for which tests were available.

Validity of the Instruments. The validity of the multiple choice content-achievement tests was assumed on the basis of the knowledge and training of the consultants. That is, it was assumed that these instruments represented the goals set for the afternoon sessions. The validity of the Attitude Questionnaire was

examined in more detail. This instrument was given to the staff members of the training program. The results were then examined to determine whether or not the staff members scored high on the instrument. A failure to do so would suggest an invalid instrument. Also, the data obtained from the staff was used to compare with changes observed in the participants. Changes toward the scores of the staff were then considered as desirable. No formal statistical tests were necessary to examine these considerations of validity.

Results and Discussion

Results of Attitude Questionnaire. In all of the following pre-test results the number of people in the three groups were as follows: teacher aides, 25; Head Start aides, 23; and parents, 24. The number of subjects for the post-test comparisons were: teacher aides, 17; Head Start aides, 19; and parents, 12. The degrees of freedom for all of the comparisons was two.

The results of the pre-test Attitude Questionnaire revealed that the aides in the training program ranked first in positive attitudes toward students; the control group of parents were second; and the Head Start aides ranked last in the ranking. There were no significant differences (H=2.54) existing initially between the rankings and/or the attitudes of the three groups. In the post-test ranking the aides in the training program were again ranked first, and were significantly (H=12.31, alpha = .01) above the second-ranked Head Start aides and last-ranked parents.

The results of the pre-test Attitude Questionnaire concerning positive attitudes toward self of self-concept showed the aides of the training program to be ranked first, and significantly (H=4.92, alpha = .10) above the second-ranked Head Start aides and last-placed parents. In the post-test ranking the Head Start aides ranked first, but not significantly (H=3.63) above the second-ranked aides of the training program and third-ranked parents.

The pre-test results concerning positive attitudes toward the educational system, as obtained from the Attitude Questionnaire, showed the aides of the training

program to be ranked first, but not significantly (H=.047) above the second-ranked parents and last-ranked Head Start aides. In the post-test ranking the Head Start aides ranked first, but not significantly (H=3.54) above the second-ranked aides of the training program and last-ranked parents.

The results of the pre-test Attitude Questionnaire concerning positive attitudes toward the role of teacher aides showed the aides of the training program to be first ranked, and significantly (H=6.49, alpha = .05) above the second-ranked Head Start aides and third-ranked parents. In the post-test ranking the teacher aides were again ranked first, and were significantly (H=14.49, alpha = .01) above the second-ranked Head Start aides and last-ranked parents.

The pre-test results concerning positive attitudes toward occupational opportunities, as obtained from the Attitude Questionnaire, showed the aides of the training program to be ranked first, and significantly (H=5.15, alpha = .10) above the second-ranked Head Start aides and last-placed parents. In the post-test ranking the Head Start aides ranked first, but not significantly (H=1.64) above the second-placed aides of the training program and the third-ranked parents.

The above results are summarized in Table I.

In addition to the group comparisons, an examination of pre- and post-test differences for each of five attitude measures was made for the participants in the teacher aide training program. The results of these comparisons are indicated in the following paragraphs. For each of the statistical tests indicated here there were eighteen subjects and one degree of freedom.

There was a significant difference (R=4.5, alpha = .05) in the aides' attitude toward students with post-test results showing higher scores.

There was a significant difference (R=2.72, alpha = .10) in the aides' attitude toward self with post-test results showing higher scores.

There was a significant difference (R=4.5, alpha = .05) in the aides' attitude toward the educational system with pre-test results showing higher scores.

TABLE I

Group Rankings on the Attitude Questionnaire

PRE-TEST		POST-TEST	
Attitude Toward	Significance	Attitude Toward	Significance
Students		Students	
1. Teacher Aides		1. Teacher Aides	alpha = .01
2. Parents		2. Head Start Aides	
3. Head Start Aides		3. Parents	
Self-Concept		Self-Concept	
1. Teacher Aides	alpha = .10	1. Head Start Aides	
2. Head Start Aides		2. Teacher Aides	
3. Parents		3. Parents	
Educational System		Educational System	
1. Teacher Aides		1. Head Start Aides	
2. Parents		2. Teacher Aides	
3. Head Start Aides		3. Parents	
Role of Teacher Aides		Role of Teacher Aides	
1. Teacher Aides	alpha = .05	1. Teacher Aides	alpha = .01
2. Head Start Aides		2. Head Start Aides	
3. Parents		3. Parents	
Occupational Opportunities		Occupational Opportunities	
1. Teacher Aides	alpha = .10	1. Head Start Aides	
2. Head Start Aides		2. Teacher Aides	
3. Parents		3. Parents	

There was no significant difference between the pre- and post-test scores for attitudes toward the teacher aide role by participants in the program.

There was no significant difference between the pre- and post-test scores for attitude toward occupational opportunity by participants in the program.

The validity check showed that the mean scores on four of the five attitude measures was highest for the staff. On one measure, attitude toward the educational system, the staff mean was lower than the aides' pre- or post-test mean. Thus, for this measure, lower scores were interpreted as being more positive. Therefore, every significant change in attitude made by the aides during the summer program was a change toward a more positive attitude.

Discussion of Attitude Questionnaire Results. An analysis of the results showed that desirable attitude changes occurred on four of the five attitude measures. The only exception was attitude toward occupational opportunity. Further analysis showed that the training program itself seemed to be the major agent responsible for change in two areas, attitude toward students and attitude toward the role of teacher aides. In the other two areas, attitude toward self and the educational system, there was a desired change but the experience of the Head Start aides seemed to be more valuable in making this change, as they ranked higher in the post-test results than the aides of the training program.

Results of Multiple Choice Content-Achievement Evaluation. There was a significant difference between the pre- and post-test results for the teacher aides on all five content measures. The data showed that the post-test measures were significantly higher than pre-test measures for each area. The results are summarized in Table II.

TABLE II

Results of Content Area Evaluation

Area	N	R (Chi-Square)	Alpha
Physical Education	20	11.25	.01
Math	20	11.25	.01
Language Arts	15	11.27	.01
Creative Arts	21	3.05	.01
Audio-Visual	21	12.19	.01

Discussion of Multiple Choice Content-Achievement Results. An analysis of the results showed that in each of the five instructional areas the aides of the training program scored significantly higher at the end of the program than they did initially. It appears, therefore, that the aides changed toward the desired goals as defined by the consultants.

Results and Discussion of Teacher Aide Form of the Program Evaluation Questionnaire. ~~The actual frequencies of response for each category of this instrument are found in the appendix.~~ The following is a summary of the main findings.

The aides did not feel that the program was too long or scheduled inconveniently. However, about half the group did not prefer the location of the school in which the training was held.

The aides felt that both morning and afternoon sessions were useful, interesting, understandable, and not too difficult.

Division of opinion existed over the amount of participation, practice, and observation time built into the program with about half the group asking for more of these types of activities.

All of the aides felt that the review week was helpful and about one-fourth of the group complained about the difficulty of the wording of tests given during the summer. The same proportion felt that they would not have attended the sessions without pay.

Some individual comments were added to the form. Most have already been reported,

but a few were unique. These were the expressions of single aides: The content area of audio-visual instruction should have come first so that the machines used by the instructors in the rest of the program could reinforce learning about these devices; the content area of physical education should have followed some sit down subjects such as math and language arts; there should have been stricter rules on the end of break and lunch time; and there should have been a week to work with the specific teacher that each aide would later be assigned to.

Results and Discussion of the Staff Form of the Program Evaluation Questionnaire. The staff form of the evaluation questionnaire had only unstructured responses to open questions and these responses are summarized in the following paragraphs.

The staff seem satisfied with the content of the program, but several indications of additional content areas were made. It was suggested that more work should have been done with the language patterns of the aides. Also, several returns mentioned the need to include social studies and science as formal content areas. More attention to classroom management, housekeeping "know-how," and first aid was also suggested.

The only suggestion concerning the sequence of the program was to put language arts as the first content area rather than the last.

The returns were almost unanimous in calling for more activity in the program. The staff seemed to feel that there was enough time for lecture but not enough opportunity for observation or practice by the aides. More time for working with children was a definite suggestion.

Lack of material also seemed to be a very common concern. Children's books, records, art materials, rhythm band instruments, and library materials all seemed to be in short supply or unavailable.

The organization of the program was commented on by most of the respondents. More coordination between all parties involved in the program was frequently suggested.

One additional comment was made concerning the summary week and that was that

more of a team effort, in the form of an attempt at integrating the various subjects, should be made for review purposes.

Results and Discussion of the Follow-up Evaluation Questionnaire. This questionnaire to assess the effectiveness of the summer teacher aide training program was administered to the teachers after the aides had experienced two months of classroom duty.

An analysis of the results showed that the aides were performing approximately 90 percent of the 85 itemized tasks. The teachers also felt that the majority of these functions were handled satisfactorily.

Of those 45 functions considered to be instructional in nature only six, as scored by at least five of the teachers, were functions which the aides needed more training. They were: playing games with pupils (such as rhyming games, guessing games, and finger games); helping pupils learn how to settle arguments without fighting; listening to a pupil tell a story; encouraging pupils to make the most of themselves; helping a pupil learn to do something new and perhaps a little more difficult than he thinks he can do; and being in complete charge of the class for an hour.

Of those 40 clerical, housekeeping, and technical functions of aides, three were considered functions which the aides needed more training, as assessed by at least five of the teachers. They were: preparing audio-visual materials such as charts at the request of the teacher; operating equipment such as movie projectors, slide projectors, and tape recorders; and watching pupils from back of the classroom to prevent unruly behavior.

The following is a representative sample of comments from a call for aspects of the program which need more stress.

"My aides talk among themselves too much."

"They need more confidence!"

"Concentrate your program on having the aides to be more aware of a proper

classroom learning environment, particularly keeping the children quiet when she is working with them."

"More time should be devoted to making visual aides and devices."

Evaluation Difficulties

One of the problems of the evaluation was the lack of developed and validated test instruments. The time period of the funding was too short to permit adequate instrument development.

Another difficulty was caused by the lack of random assignment for comparison groups. The three groups used in the study seem similar but the pre-test differences were not equivalent for all measures. This made interpretation of post-test differences more difficult.

A third problem developed with the actual testing situation. It never was possible to get all of the subjects together at one time so that some of the test results were obtained under different conditions and at different times. Also, there was a noticeable loss of subjects between the pre- and post-test sessions.

Finally, there was a difficulty with non-returns from the staff members of evaluation forms. Only seven forms were returned.

Summary, Conclusions and Recommendations

Summary

A training program to prepare paraprofessionals as teacher aides for primary grades was developed during the spring and summer of 1969 by the Jefferson Parish Schools system. The program, which was founded under the Education Professions Development Act, was intended to train teacher aides and to serve as a guide for such programs in the future. In addition, the program sought evidence of the contribution such aides could make to the Jefferson Parish schools.

The professional personnel involved in the program were from the Jefferson Parish school system and the College of Education of Louisiana State University in New Orleans. The parish personnel conducted morning sessions of the actual eight week

training program and the university staff conducted afternoon sessions for the trainees. The morning sessions were built around a general orientation to the school system, a specific orientation to the tasks of a teacher aide, and practicum experience. The afternoon sessions were built on knowledge and skills of six subject areas: physical education, child growth and development, mathematics, language arts, creative arts, and audio-visual techniques.

The trainees were twenty-five women with a mean age of 34.6, average educational background of eleven years, and a span of approximately seventeen years since their last formal education. All of the subjects had children attending schools located in neighborhoods classified as culturally disadvantaged and most had never had any employment in an educational system before the program. The trainees received $25.00 per week for the program and were employed in the Jefferson Parish school system at the end of the summer as aides in first grade and special education classes.

In order to evaluate the program, pre- and post-tests were given to the aides for each of the five afternoon content subject areas. An attitude instrument consisting of five sub-measures was given to the aides, a group of Head Start aides working during the summer, and a control group of parents before and after the summer program. Comparisons between these groups were made in order to determine the effectiveness of the program in changing attitudes. Other instruments were given to determine the reaction and suggestions for improvement of the program of the trainees and the staff. Finally, a questionnaire was given to the teachers who are working with the aides in the fall following the program to determine the contribution of the aides to the parish school system and to identify areas which had to be strengthened in the training program.

Conclusions

From the evaluation of the local pilot program to train teacher aides the following conclusions can be made.

1. Desirable changes in attitude toward students, self, the educational system, and the role of teacher aides occurred over the eight week training sessions; and the training program itself appeared to be the major agent responsible for significant change in the areas, attitude toward students and attitude toward the role of teacher aides. In the other two areas, attitude toward self and the educational system, there was a desired change but probably greater change would have occurred if the trainees were exposed to more on-the-job training and experience.
2. The aides changed toward the desired goals of the program as they scored significantly higher at the termination of the training program then they did initially in the five assessed instructional areas of physical education, mathematics, language arts, creative arts, and audio-visual.
3. The majority of the aides felt that the program was useful, interesting, and understandable. They also felt that it was not too long, scheduled inconveniently, or too difficult. They did report, however, that not enough time was built into the program for participation, practice, and observation.
4. The staff of the training program were satisfied with the core content of the program but were unanimous in suggesting more activity and practicum experience be afforded the trainees. They also felt more coordination was necessary between all parties involved in the program. Another common concern of the staff was the lack of available and relevant instructional materials.
5. The teachers to whom the aides were assigned at the beginning of school were quite satisfied, after two months of working with the aides, with their handling of various instructional, clerical, housekeeping, and technical functions of the classroom.
6. Aides with a minimal background of education and experience can be trained in an eight-week period to function adequately as classroom assistants in first grade and special education classes.

Recommendations

1. The parties involved in the training program should make efforts to continue the project since it was effective in meeting a majority of the stated goals.
2. Similar staffing practices are also recommended; however, greater efforts should be made to coordinate the entire program between the parish school system, the university, and within each of these groups.
3. The aides should be provided with a leader to identify with and help in the coordination of the program.
4. No changes in recruitment policy for the aides is suggested. The present policy seems to be effective in providing trainees who can benefit from the program.
5. The program itself should contain more opportunities for the aides to observe and practice classroom techniques with children. Also, the staff members should use more activities which would more adequately develop self-confidence in the aides.
6. Greater efforts need to be made to provide materials requested by staff members.
7. Some consideration should be given to the inclusion of science and social studies as formal areas of study for the training program. More work with classroom management, housekeeping, and first aid is also suggested. Some speech training for the aides should also be considered.
8. The review week should also be reevaluated with more effort made to integrate the different areas during the review.
9. It is also recommended that there be some opportunity for the aides to meet and work with the teachers to whom they will be assigned.
10. More work needs to be done to insure adequate comparison groups and returns of instruments for the evaluation of future programs.

THE EFFECTIVE USE OF PARAPROFESSIONALS IN THE CLASSROOM

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Teacher aides are becoming a common sight in classrooms today. A few years ago only those school districts considered affluent hired aides. Today, they are commonplace. There are legal ramifications as to how much or how little a teacher aide can do. The amount of aide participation varies from state to state and, in some instances, from locality to locality. The Florida Follow Through Model is rather precise as to the kinds of activities in which paraprofessionals should be involved.

If one looks around fairly carefully, he finds that teacher aides in the classroom basically get involved in two kinds of activities: The "housekeeping" activities involve the aide in dusting, arranging furniture, babysitting, checking thermostats and other necessary but low-level activities. Another activity in which teacher aides are commonly involved would be what might be labeled as "clerical." Examples of this exercise would be assisting the teacher in making up and running off dittos, collecting milk money, collecting Red Cross money and, in some instances, taking attendance. To be fair, many aides do other things, but those activities that have been reported are fair generalizations of what teacher aides have done. Aides do get involved in instruction here, and there, but not to a large degree in comparison to these other activities.

The Florida Model suggests that educators move beyond the low level and permit these aides to get involved in higher level classroom activities. In other words, educators must develop the paraprofessional. No one disputes that the classroom is the teacher's domain. Our teaching training institutions prepare students to enter the profession and attempt to teach them how to work effectively with children. However, those who work in classrooms recognize that teachers need help from many different sources in order to do the best job possible. It is

the teacher's responsibility as the person in charge of the classroom to work with and best utilize the talents of the paraprofessional. The question is, "What will I do with them?" "What can they do?"

How much the paraprofessional does in the classroom depends on the ability, interest, and enthusiasm of the paraprofessional. A teacher must be careful not to subject the paraprofessional to a situation that the paraprofessional is unprepared to handle. As the teacher and paraprofessional work together, the teacher makes judgements as to when and with what the paraprofessional will become involved.

Classroom activities fall into a hierarchy. Two levels of the hierarchy, housekeeping and clerical activities have been discussed. It should be emphasized that these activities are not reserved for just the paraprofessional. These are activities that people in a classroom do. They are done by whomever can do them most easily or efficiently. The idea is to get them done so that the real job of instruction can be accomplished.

Level three of the hierarchy concerns the role of the paraprofessional in working with materials. The paraprofessional can work as resource person in the classroom for both the children and the teacher. With assistance and guidance the paraprofessional can locate materials, develop files and set up displays and demonstrations to be used by the teacher for the purpose of instruction. The children can benefit from another resource person in the room. To accomplish these objectives, the teacher will need to take the responsibility of pointing out the importance of materials, sources for finding materials and the effectiveness of various materials used in the teaching-learning process.

A fourth level activity in the hierarchy and the one that demands

the greatest amount of time and thought is instruction. We believe that the paraprofessional can be taught how to handle many of the teaching functions in the classroom. She can work with individuals, either those who require remedial work or those who require extra guidance so that they may go beyond the work assigned in class. Paraprofessionals can work with small and large groups of children. However, at the expense of repetition, the selection of activity is determined by the interest and ability of the paraprofessional. For example, should a sixth grade teacher permit the paraprofessional to take responsibility in a discussion of fractions? If in the judgement of the teacher the paraprofessional feels comfortable with this content, then the answer is an emphatic, yes. One of the things that a teacher should do as soon as possible would be to look at and get to know the paraprofessional thoroughly in an effort to learn the interests and skills of the paraprofessional. In a recent conversation with a teacher she pointed out how difficult it was to identify the skills of her paraprofessional. A little probing brought out the fact that the paraprofessional did consider herself to be an excellent cook. It would seem that any woman who knows anything about a kitchen would have to know something about business arithmetic and measurement. She could hardly function in the kitchen without this knowledge. How does one get the most out of your dollar in the grocery store? If one doesn't call that adding and subtracting, then I don't know what it would be labeled. How to get the most for one's money is relevant. Why does one buy this can of beans rather than that can of beans? How does one feed his family for a week on ten dollars? Can one purchase enough food and yet prepare well balanced meals? Not only are these mathematical problems they are also health and nutritional problems. It would

seem that anyone who has had these experiences could very well pass them on to children in a real and meaningful way.

The presence of the paraprofessional permits teachers to do some things that they have been saying for years that they want to do. The class size, in most instances, is too large. Teachers have complained and rightfully, that it is virtually impossible to meet individual needs with so many children. Simple arithmetic would indicate that four hands, if used properly, are better than two hands.

Teachers know that working with paraprofessionals means more work. Not only do teachers have to worry about children but also training paraprofessionals takes time and a great deal of energy. However, it is time and energy well spent. It permits the teacher to put her experience and skills where they are most needed. Now the teacher can work with the child who needs her competence. Now she can really work with the child who needs individual attention. As much as teachers try to do that in todays' classroom it is virtually impossible because as Billy needs help, so do the others. "I can't spend my whole day with Billy as much as I'd like to, because Betty needs me too." A trained paraprofessional working instructionally can make this possible.

Discipline is part of the instructional process. It should be sufficient to point out that the paraprofessional must command the same respect afforded the teacher. It is therefore essential that all adults in the classroom are in agreement regarding the standards of acceptable behavior and in agreement as to what constitutes misbehavior. Children should expect to be treated fairly and consistently regardless of who is in charge at the moment. As long as the teacher and paraprofessional are in constant communication few problems should arise.

Probably the most difficult aspect of teaching and the highest

rung of our hierarchy is evaluation. How does one evaluate fairly? On what basis? Books are available dealing with this topic. It is, therefore, obvious that this topic will only be touched upon here. The point is that we need to evaluate children. In following the line taken in this paper it is suggested that this activity become a shared responsibility. Any final evaluation of children's progress is the responsibility of the teacher. However, teachers and paraprofessionals both working with children can talk about the progress of the child. The paraprofessional is well-informed. She works with children daily. This writer has heard paraprofessionals report such comments as, "he seems to be understanding some of these math concepts better this week than he did last week." This is extremely useful information for a teacher to have. This kind of feedback is important from a report card point of view. However, it is more useful on a day-to-day basis. What's happening today? What's happening to this child? Has he grown? Was there any behavioral change? Did you see anything today that you didn't see yesterday? A paraprofessional can be useful in providing feedback to these questions.

The notion of evaluation as a daily activity seems to make good sense. It's the kind of evaluation encouraged in our Model. This can and should be a shared responsibility.

The Taxonomy of Classroom Activities was developed for the purpose of providing direction to the teacher and paraprofessional. It constitutes the hierarchy discussed in this paper and lists activities that can be shared by teachers and paraprofessionals. There are a variety of things that teachers and paraprofessionals can and should do in the classroom. There is very little that cannot be shared. How much sharing takes place depends on the enthusiasm, maturity and ability of the responsible adults involved in the program.

TAXONOMY OF CLASSROOM ACTIVITIES

Teacher-Aide Instructional Activities

1.0 Housekeeping
- 1. Dusts, cleans, etc.
- 2. Helps children with clothing
- 3. Arranges furniture
- 4. Keeps order (babysitting)
- 5. Posts bulletin board
- 6. Takes monitoring responsibility (bus, lunch, snacks, lavatory, recess)

2.0 Clerical
- 1. Collects monies
- 2. Collects papers
- 3. Takes attendance
- 4. Duplicates materials
- 5. Distributes materials
- 6. Fills out routine reports
- 7. Gives tests
- 8. Maintains inventory
- 9. Maintains instructional material file
- 10. Keeps records

3.0 Materials
- 1. Locates materials
- 2. Makes bibiliography
- 3. Sets up displays
- 4. Sets up demonstrations (prepares materials)

4.0 Instruction

4.1 Teaching
- 1. Tutors individual
- 2. Organizes play activity
- 3. Selects materials
- 4. Develops materials
- 5. Teaches total group
- 6. Teaches small group
- 7. Disciplines
- 8. Organizes group for instruction
- 9. Makes judgments

4.2 Planning
- 10. Plans, organizes meeting
- 11. Plans bulletin board
- 12. Plans lesson (small group, large group)

5.0 Evaluation

1. Grades papers
2. Makes anecdotal records
3. Uses Systematic Observation Schedule
4. Organizes case study
5. Evaluates materials
6. Makes test
7. Interprets test results

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Paraprofessional Concept in Speech and Language Development in Small Children

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Introduction

This is a time of challenge and change. Procedures and techniques once deemed adequate are being questioned; personnel shortages in the expanding field of special education continue unresolved; more attention is being given to language as a vital element in the learning process; increased interest is being shown in the pre-school child's educational readiness; pressures are being applied to involve subprofessionals and volunteers in many federally funded educational programs.

The area of speech and hearing therapy has not been immune to this change and challenge. A combination of pressure for increased services plus a continuing shortage of trained clinicians has resulted in steps being taken to investigate the use of paraprofessionals in speech and hearing. I wish to share with you our experiences in Indiana with a pilot project involving paraprofessionals in speech and language development and remediation.

Background

The American Speech and Hearing Association held the first formal meeting to investigate the possible utilization of such personnel in early March of 1967 in Houston, Texas. Another institute took place in Washington in September of 1967. Approximately at the same time a research-demonstration project in the training and utilization of paraprofessionals or aides in speech therapy (at this point I am using the terms synonomously) was begun at Ohio University. In early 1968 the Texas Education Agency and Our Lady of the Lake College in San Antonio undertook a project to determine the effectiveness of teacher assistants or aides as articulation clinicians. The colorado State Department of Education under a Title VI grant in the early Spring of 1968 developed a pilot project utilizing such personnel. Similar less formal

projects and programs had been put into use in hospitals and rehabilitation centers using volunteers and persons trained on the job.

Project Expand

Our experience with this concept of paraprofessionals began with a Title III funded two year program named PROJECT EXPAND, with the primary objective of evaluating paraprofessionals in speech and hearing who were working in the public schools of Indiana. In may of 1968 a proposal was submitted by the Division of Special Education of the Department of Public Instruction to the United States Office of Education seeking funding for salaries for eight paraprofessionals, a project director, and monetary support for a three week pre-service training workshop and periodic evaluation meetings.

A planning and advisory committee was formed with the committee assigned the responsibility for determining project objectives, criteria for the selection of the paraprofessionals, workshop content, and evaluation procedures. The Supervisor of speech and hearing services in the Division assumed the role of Project Advisor, in the absence of a Project Director, and contacted eight public school clinicians, the director of special education in one of the state's counties through whose office the project would be administered, the director of clinical services at the Indiana University Medical Center Audiology and Speech Clinic, and your speaker whose position is that of a teacher and clinic supervisor at a university training center. These twelve individuals comprised the planning committee.

A series of meetings took place in May and early June of 1968 at which time the criteria for employment of paraprofessionals was determined. It should be noted that these criteria were subjectively arrived at and have since been modified. The following guidelines were established: (1) should be a successful mother, (2) should have a high school education, (3) should have no speech or hearing problems, (4) should relate well to children, (5) should possess good health, (6) should reflect a personality of warmth, flexibility, and be able to work under close supervision, (7) should preferable have had some experience working with groups of children, and (8) should be willing to commit themselves to a two year project. (We have since been reminded that our

idealism was showing when these guidelines were drafted; many regularly employed teachers wouldn't fit our criteria!)

Advertisements in local papers and word of mouth brought a number of applicants for each position. The selection of personnel was the ultimate responsibility of the local school. The supervising clinician, who was also a member of the planning committee, and the project advisor interviewed the applicants.

The proposal was funded in July so contracts could be finalized with the seven employing school corporation--two of the eight paraprofessionals were employed to work in the same corporation. Planning was then begun for the August workshop. The planning committee had hypothesized that supportive personnel might perform the following functions: (1) participate in speech and hearing screening, (2) gather objective background data concerning children, (3) assist in the preparation of materials, reports, etc., and, (4) work under supervision in certain routine drill activities, language stimulation, and group speech improvement programs. With these possible job tasks in mind the workshop scheduled for the last three weeks in August began to take shape.

Workshop

Indianapolis was chosen as the site of the workshop because of its central location and the participants who came from throughout the state were housed at the Student Union on the Medical Center campus of Indiana University. Meeting rooms were available in that facility so daily lectures, demonstrations, how-to-do-it workshops, and clinical practicums were scheduled. During that time the concept of speech and hearing programs in the public school was discussed as it relates to a total school philosophy, with considerable emphasis given to the ethics involved. An orientation to the causes and management of speech and language problems was presented; attention was given to the development of sound awareness, with an introduction to phonetics; the philosophy, objectives, methodology, and materials used in speech improvement, language stimulation, auditory training, speech and hearing screening, and articulation remediation were discussed and demonstrated. Throughout this time the paraprofessional was described as an

individual with a dual role as a CLINICAL helper and a CLERICAL helper.

The daily sessions during the first two weeks of the workshop extended from 9:00 a.m. to 4:00 p.m., with brief time out for group luncheon. Guest lecturers during this period included members of the advisory committee, and professional colleagues from Ohio University, Ball State, Indiana University, and Purdue. Video tapes, films, recordings, and directed observations of testing and therapeutic procedures were also utilized.

During the third and final week of the workshop the supervising clinicians joined the group. Time was spent discussing role modification and identification, specifying objectives of our program, methods of supervising and developing on-the-job training procedures and techniques and procedures for evaluating the effectiveness of the program. During the final week a day and a half was devoted to speech and hearing screening in a public school setting with the paraprofessional and her supervising clinician acting as a team.

The Paraprofessional Identified

Early in the workshop an attempt was made to ascertain certain traits, interests, and characteristics of the individuals selected for participation in the project. It was our hope that future selection of such individuals would be assisted by this initial procedure.

The age range for those chosen was from 26 to 45 years with a mean of 36; all had at least 2 children; had a high school diploma; and had previous experience in dealing with groups of children.

An attitude scale specifically devised for this project, which hopefully would profile attitudes toward handicapped children, children's behavior, the operation of speech and hearing programs, etc., was not definitive enough to be of value. The responses to the questionnaire suggested a rather wide range of attitude, held not only by the paraprofessionals but by their clinical supervisors as well.

An occupational interest inventory (Kuder) revealed that the paraprofessionals scored highest in service and clerical-secretarial related areas.

A quick measure of mental abilities as revealed by the Otis Quick Scoring Mental Abilities Test (Gamma) revealed a mean score of 101 and a median of 102.5. An attempt at personality assessment was made through use of the Edwards Personal Preference Schedule and the Guilford-Zimmerman Temperament Survey. The interpretation of such instruments is recognized as a most precarious undertaking, however, the results of both appeared to identify rather common characteristics--the paraprofessionals tended to observe and analyze the behavior of others, tended to seek suggestions from others, to follow instructions and do what was expected of them, they were relatively sociable and out-going, cooperative and emotionally stable.

Project Expand in Action

The project actually got underway with the opening of school in early September of 1968. Both the paraprofessionals and their supervisors kept a daily log of time expenditure in an attempt to identify how the paraprofessional's services were utilized. It was recognized that a certain degree of autonomy existed and that clinicians and school corporations would be free to determine the direction the individual programs would take. There was, however, much commonality as the first reports were made at the initial evaluation meeting in late October. In descending order of time expenditure the activities were identified as: hearing screening, in-service training, record keeping, speech screening, observing the supervisor, group and individual articulation drill, materials development, and a number of activities which accounted for only a small part of the total time. It should be remembered that this reflected only the first few weeks of a new school year during which time much screening was done and a therapy schedule was only tentatively established. Additional follow-up evaluations in February and May saw changes in the time expenditures, with more attention being given to speech improvement activities, materials development, and individualizing articulation therapy carry-over.

Although funds had been allocated for a Project Director, such a person could not be found. The Project Advisor continued as Acting Project Director, made periodic site visits throughout the school year and acted to give a measure of unity to an otherwise rather far scattered project.

I had the opportunity of visiting several of the paraprofessionals and observed their work with Kindergartners in speech improvement activities.

First Year Evaluation

Upon the completions of the first year of the project an evaluation meeting was held at which time the supervising clinicians, the paraprofessionals, the project advisor, and I attempted to reassess what had transpired during the course of the year both in terms of personnel involved and of the effect upon the speech and hearing programs as they served children. In addition to the obviously subjective (and probably biased) impressions obtained from those immediately involved, a detailed questionnaire was obtained from 231 administrators, teachers, and parents who were in some way connected with the schools being served.

Recognizing the limitations of such an evaluation sampling, one is none the less impressed by the high degree of favorable response accorded the project. The most positive response came from building principals, administrators (superintendents, counsellors, supervisors, etc.), teachers, and parents in that order. It also appeared that the acceptance of the program reflected the information or first hand knowledge the respondent had concerning the program.

The supervising clinicians identified a number of benefits which they believed resulted from the use of paraprofessionals. Included were:

1. Improved communication with ancillary personnel (i.e., nurses, psychologists, etc.) which in turn provided better follow-up, data gathering, record keeping, and more opportunity for staffing and diagnostic workups.
2. Enhancement of teacher/clinician relationships resulting from greater flexibility of schedules, more and better written reports, making additional instructional and informational materials available, and conducting a more efficient screening service, thus reducing class disruptions.
3. Improved therapy management produced by more intensified and individualized therapy, schedules which were more appropriate to a child's needs, more rapid

initiation of therapy in the fall because the screening process is speeded up, one more person showing a particular interest in a child, and speech improvement and language stimulation sessions which could be more readily available.

4. In the event that the supervising clinician also had a student teacher, it was reported that the paraprofessional was able to perform some of the more routine orientation tasks such as informing the student teacher of building schedules, record deeping, etc. and in some instances could enable the supervisor to spend increased time with the student teacher.

The Second Year of Project Expand

As was indicated, this is a time of change and challenge and our second year into the project reflects this fact. Of our eight beginning paraprofessionals only four are continuing--in two instances husbands were transferred, one person became so enthused about the work that she began fulltime college training to become a professionally qualified clinician, and one resigned shortly before the end of the academic year, apparently because of personality conflicts between the clinician and the paraprofessional.

The remaining clinician-paraprofessional terms report continuing enthusiasm and services extending to a larger number of clients. The time previously devoted to on the job training and instruction has been reduced and been applied to actual program service. The initial evaluation meeting for the 1969-70 school year is to take place shortly and more specific statements can be expected following that session.

Projections into the Future

The use of carefully selected, trained, and supervised paraprofessionals in speech and hearing would seem to offer much to persons who are willing to take a hard look at what they are currently doing and what they might be doing.

The concept of programmed instruction and operant conditioning has hardly been touched. Paraprofessionals may be trained to assume technical roles in handling the mechanical or

physical aspects of programmed "laboratory experiences" using materials developed by clinicians. Wide variations in scheduling may also be a benefit of using such personnel. Rotating assignments with other clinicians, developing a schedule of repeated brief therapy sessions the same day with youngsters showing severe problems, and modifying block scheduling are all potentially more feasible.

Again it should be noted that the paraprofessional DOES NOT take the place of the highly trained clinician, but rather provides that person with an expanded horizon. Where such a clinician-paraprofessional relationship can be established there should be more time for indepth diagnostic work. It is recognized that in special education much diagnostic teaching takes place--and may not be recognized. Such diagnostic teaching or diagnostic therapy, if you will, can and should take place in speech and hearing. If we are honest with ourselves we will admit that much of our diagnosis is superficial and inadequate. If we are to concern ourselves with language development and language delay we most certainly must be prepared to approach this cautiously and base remediation or therapy procedures on a sound basis.

Finally, speech pathologists are placing increasing emphasis upon the importance of the early years in the child's speech and language development. The once held theory that therapy should be delayed until children are 7 or 8 years of age to allow for maturation holds little weight today. A speech and language developmental program, in a sense, may be viewed as a preventive step rather than a corrective or rehabilitative measure. Headstart programs, nursery day care centers, and similar approaches to very early childhood education open new possibilities for the utilization of highly trained clinicians and their paraprofessional counterparts.

Challenge and change. Are we up to it?

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